

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows.

Claims 1-21 (canceled).

22. (Currently Amended) A recording head, comprising:

a nozzle plate having nozzles for discharging ink droplets arranged in a row;

a plurality of pressure generating chambers communicating to the nozzles, the plurality of pressure generating chambers including a first pressure generating chamber and a second pressure generating chamber;

a diaphragm formed on one face of the pressure generating chamber;

a piezoelectric element for displacing the diaphragm, wherein the first pressure generating chamber is disposed on one side of the nozzles arranged in the row, and ~~[[a]]~~ the second pressure generating chamber is disposed on the other side, and the first and second pressure generating chambers are opposed to each other across the nozzles arranged in the row so that the central lines of the first and second pressure generating chambers are almost coincident; and

a communication flow passage leading from the plurality of pressure generating chambers to the nozzles,

wherein ~~the communication flow passage is narrower than the~~ a width of one of the first and second pressure generating chambers is defined by two side wall faces, and wherein a ~~part~~ portion of the communication flow passage is located outside ~~a side wall face~~ the width

of one of the first and second pressure generating chambers.

23. (Currently Amended) A recording head comprising:

a nozzle plate having nozzles for discharging ink droplets arranged in a row;

a plurality of pressure generating chambers communicating to the nozzles, the plurality of pressure generating chambers including a first pressure generating chamber and a second pressure generating chamber;

a diaphragm formed on one face of the pressure generating chamber; and

a piezoelectric element for displacing the diaphragm,

wherein the first pressure generating chamber is disposed on one side of the nozzles arranged in the row, and ~~[[a]]~~ the second pressure generating chamber is disposed on the other side, wherein the first and second pressure generating chambers are opposed to each other across the nozzles arranged in the row so that the central lines of the first and second pressure generating chambers are almost coincident, and

wherein ~~the~~ a rigidity of a partition wall between the adjacent nozzles and ~~the~~ a communication flow passage is smaller than ~~the~~ a rigidity of a partition wall between the adjacent one of the first and second pressure generating chambers.

24. (Currently Amended) A recording head comprising:

a nozzle plate having nozzles for discharging ink droplets arranged in a row;

a plurality of pressure generating chambers communicating to the nozzles, the plurality of pressure generating chambers including a first pressure generating chamber and a second pressure generating chamber;

a diaphragm formed on one face of the pressure generating chamber; and

a piezoelectric element for displacing the diaphragm;

wherein the first pressure generating chamber is disposed on one side of the nozzles arranged in the row, and a the second pressure generating chamber is disposed on the other side, and the first and second pressure generating chambers are opposed to each other across the nozzles arranged in the row so that ~~the~~ central lines of the first and second pressure generating chambers are almost coincident,

wherein the inkjet recording head comprises a line scan head which has the nozzles arranged in the row and which is fixed while a printing is performed, and

wherein ~~the~~ a total number of nozzles N, ~~the~~ a distance between nozzles Np (inch), ~~the~~ a printing resolution Dp (dots/inch), and ~~the~~ a width of the line scan head Wh (inch) satisfy following formula:

$$Wh < \sin\{\arccos(Np/Dp)\} \times \{(1/Dp) \times (N-1) + 1/Np\}.$$

25. (Currently Amended) The inkjet recording head according to claim 22, wherein Cp is chosen to be about double Np, where ~~[[the]]~~ a distance between the central lines of the first and second pressure generating chambers is Cp and the distance between the nozzles is Np.

26. (Previously Presented) The inkjet recording head according to claim 22, wherein the piezoelectric element has a piezoelectric material and an electrically conductive material laminated alternately, and

wherein one end of the piezoelectric element is fixed to at least one base board having

electrical conductivity.

27. (Currently Amended) The inkjet recording head according to claim 22, wherein the piezoelectric element is fixed to ~~[[the]]~~ a base board and ~~[[then]]~~ is divided like a comb.

28. (Currently Amended) The inkjet recording head according to claim 22, wherein the plurality of pressure generating chambers is are formed of silicon by etching.

29. (Currently Amended) The inkjet recording head according to claim 23, wherein C_p is chosen to be about double N_p , where ~~[[the]]~~ a distance between the central lines of the first and second pressure generating chambers is C_p and the distance between the nozzles is N_p .

30. (Previously Presented) The inkjet recording head according to claim 23, wherein the piezoelectric element includes a piezoelectric material and an electrically conductive material laminated alternately, and one end of the piezoelectric element is fixed to at least one base board having electrical conductivity.

31. (Currently Amended) The inkjet recording head according to claim 23, wherein the piezoelectric element is fixed to ~~[[the]]~~ a base board and ~~[[then]]~~ is divided like a comb.

32. (Currently Amended) The inkjet recording head according to claim 23, wherein the plurality of pressure generating chambers are is formed of silicon by etching.

33. (Currently Amended) The inkjet recording head according to claim 24, wherein C_p is chosen to be about double N_p , where ~~the~~ a distance between the central lines of the first and second pressure generating chambers is C_p and the distance between the nozzles is N_p .

34. (Previously Presented) The inkjet recording head according to claim 24, wherein the piezoelectric element has a piezoelectric material and an electrically conductive material laminated alternately, and

wherein one end of the piezoelectric element is fixed to at least one base board having electrical conductivity.

35. (Currently Amended) The inkjet recording head according to claim 24, wherein the piezoelectric element is fixed to ~~[[the]]~~ a base board and ~~[[then]]~~ is divided like a comb.

36. (Currently Amended) The inkjet recording head according to claim 24, wherein the plurality of pressure generating chambers are is formed of silicon by etching.

37. (Currently Amended) A inkjet recording apparatus comprising:
a nozzle plate having nozzles for discharging ink droplets arranged in a row;

a plurality of pressure generating chambers communicating to the nozzles, the plurality of pressure generating chambers including a first pressure generating chamber and a second pressure generating chamber;

a diaphragm formed on one face of the plurality of pressure generating chambers;

a common ink chamber for supplying the ink via an ink supply passage to the plurality of pressure generating chambers; and

a piezoelectric element for displacing the diaphragm,

wherein the first pressure generating chamber is disposed on one side of the nozzles arranged in the row, and a the second pressure generating chamber is disposed on the other side,

wherein the first and second pressure generating chambers are opposed to each other across the nozzles arranged in the row so that ~~the~~ central lines of the first and second pressure generating chambers are almost coincident,

wherein the nozzle plate, the plurality of pressure generating chambers, the diaphragm, the common ink chamber and the piezoelectric element is accommodated by a line scan head that is fixed while a printing is performed, and

wherein ~~the~~ a total number of nozzles N, ~~the~~ a distance between nozzles Np (inch), ~~the~~ a printing resolution Dp (dots/inch), and ~~the~~ a width of the line scan head Wh (inch) satisfy following formula:

$$Wh < \sin\{\arccos(Np/Dp)\} \times \{(1/Dp) \times (N-1) + 1/Np\}.$$